

Single mode semiconductor diode laser (spectral domain)

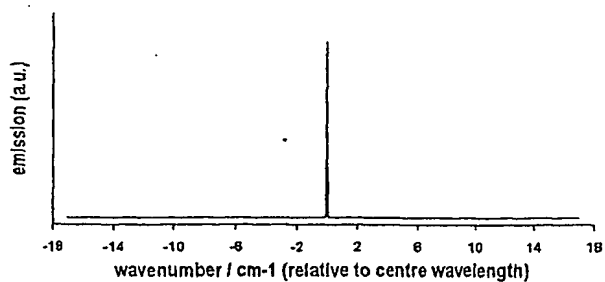


Fig.1a

Multi-mode semiconductor diode laser (spectral domain)

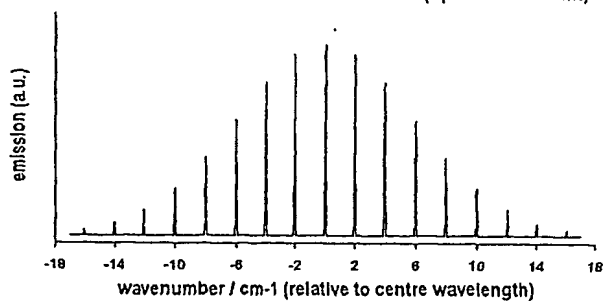


Fig.1b

Single mode semiconductor diode laser (spectral domain)

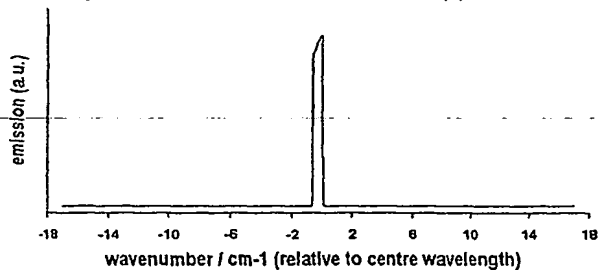


Fig.1c

Multi-mode semiconductor diode laser (spectral domain)

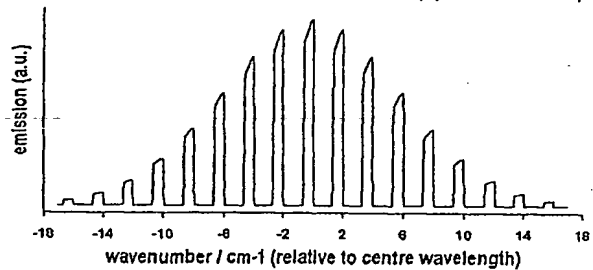


Fig.1d

Single mode semiconductor diode laser (spectral domain)

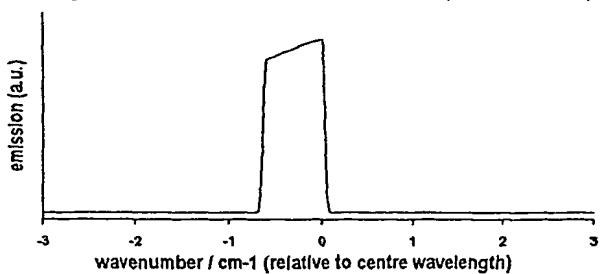


Fig.1e

Multi-mode semiconductor diode laser (spectral domain)

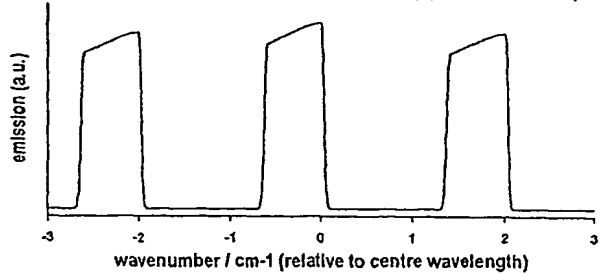


Fig.1f

Photo detector response (temporal domain)

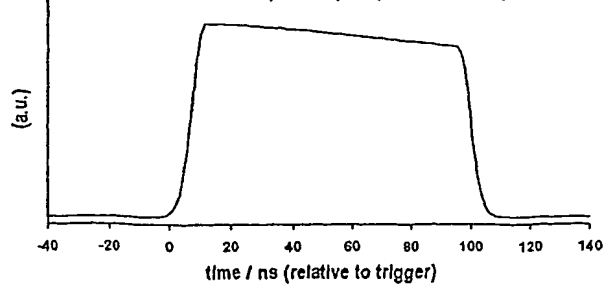


Fig.1g

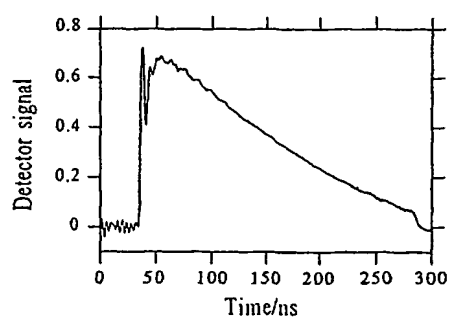


Fig.1h

2/11

10/511041

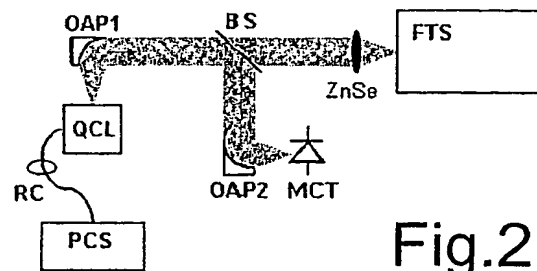


Fig.2

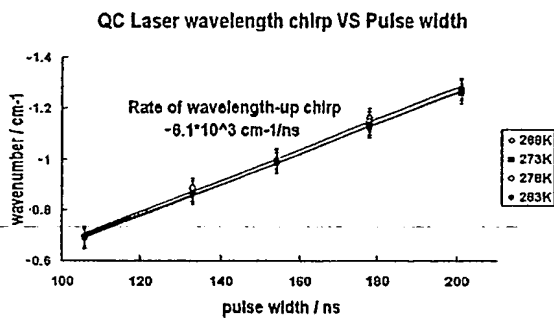


Fig.3a

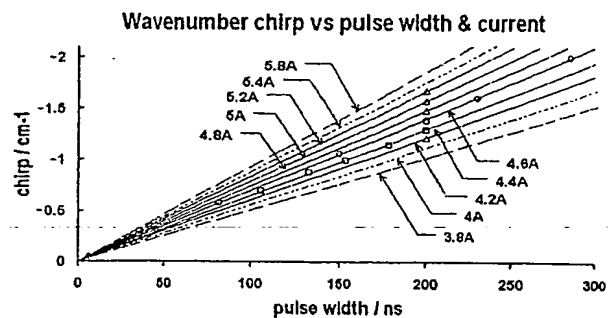


Fig.3b

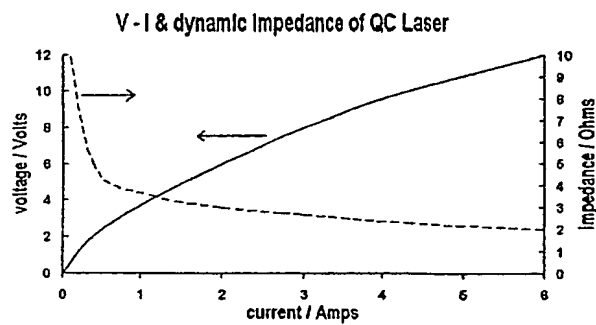


Fig4a

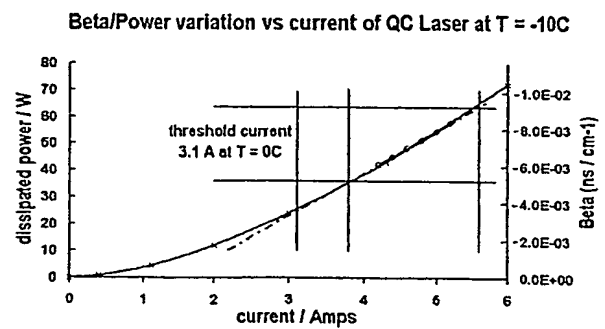


Fig4b

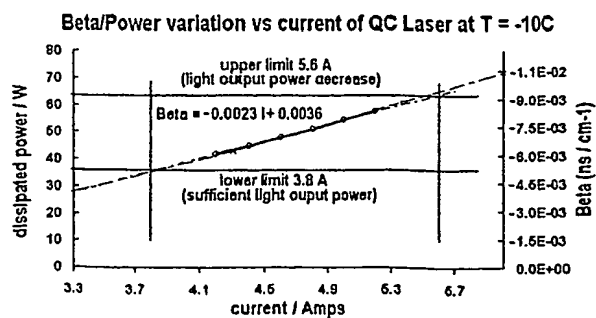


Fig.4c

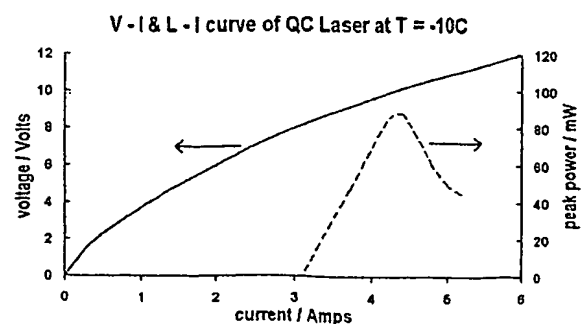


Fig.5

3/11

10/511041

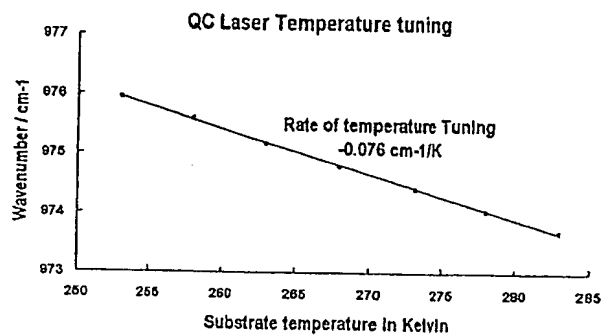


Fig.6a

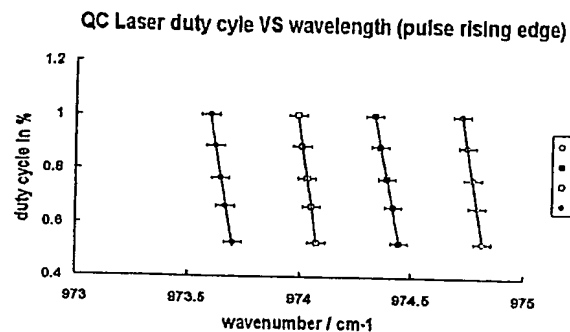


Fig.6b

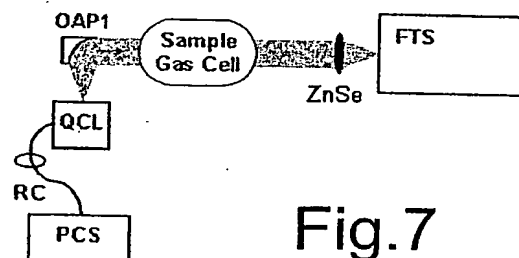


Fig.7

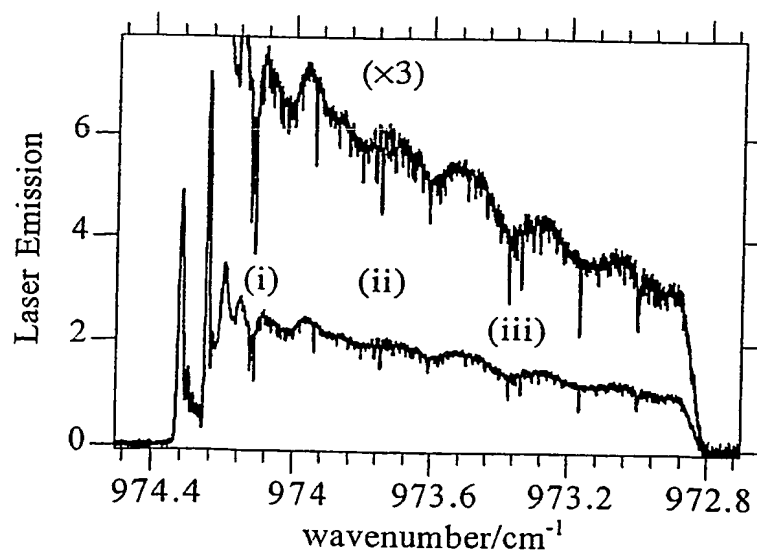


Fig.8

4/11

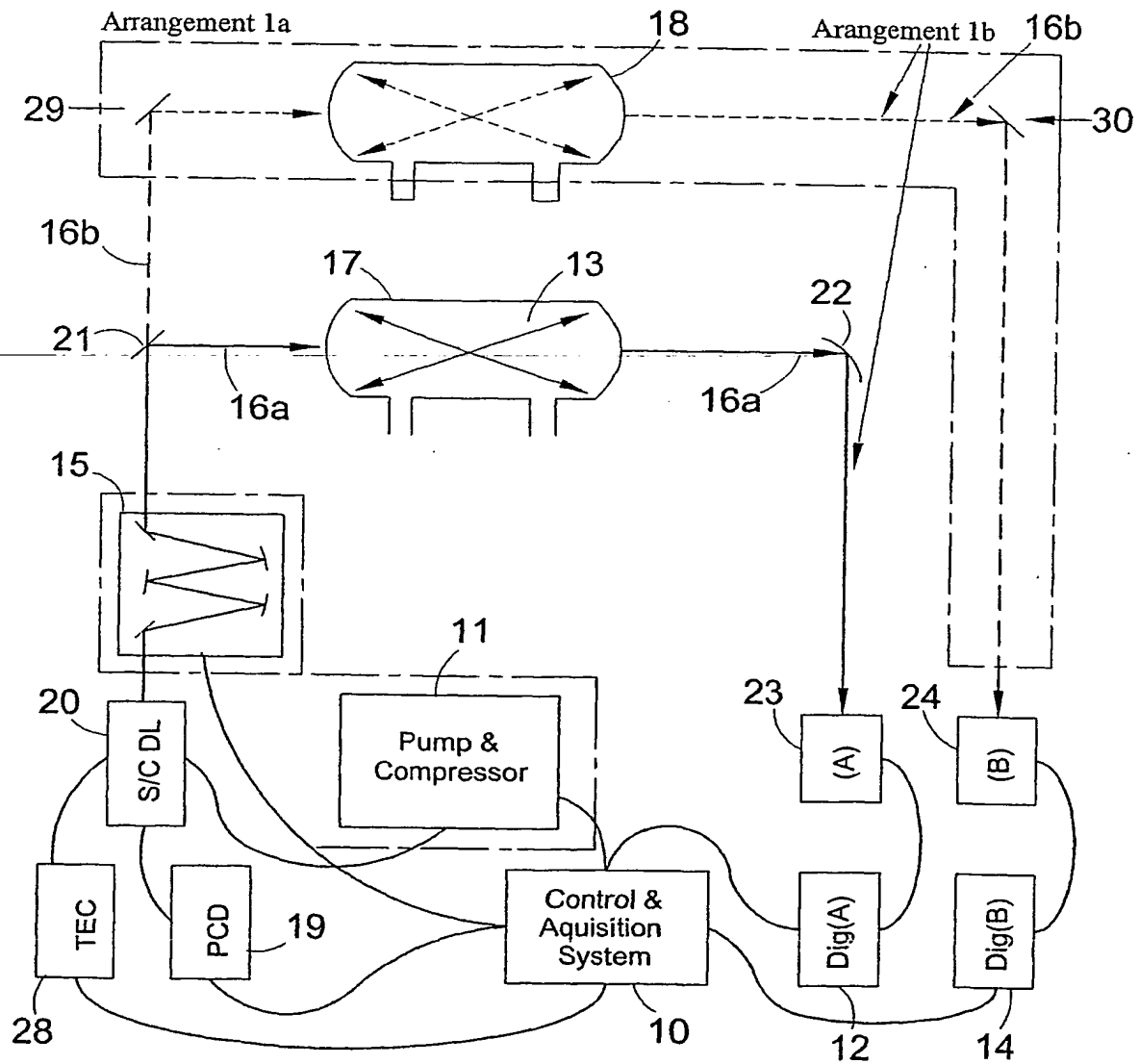
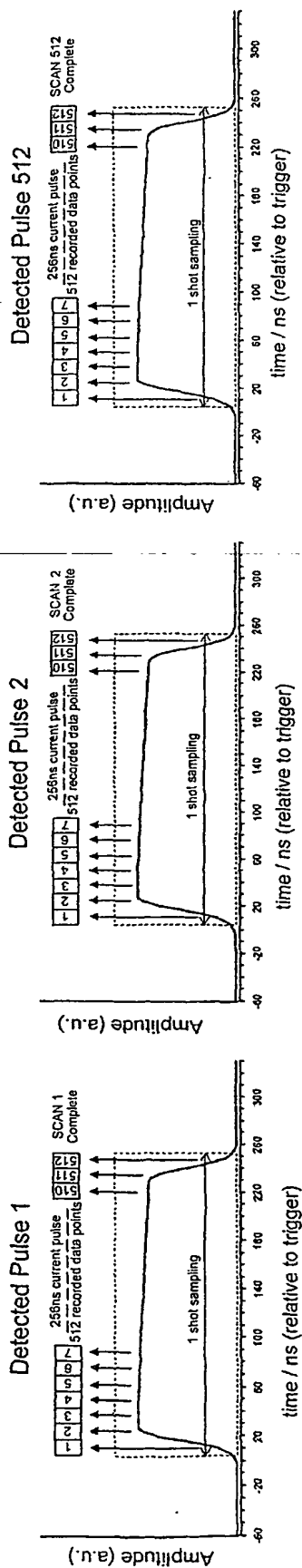
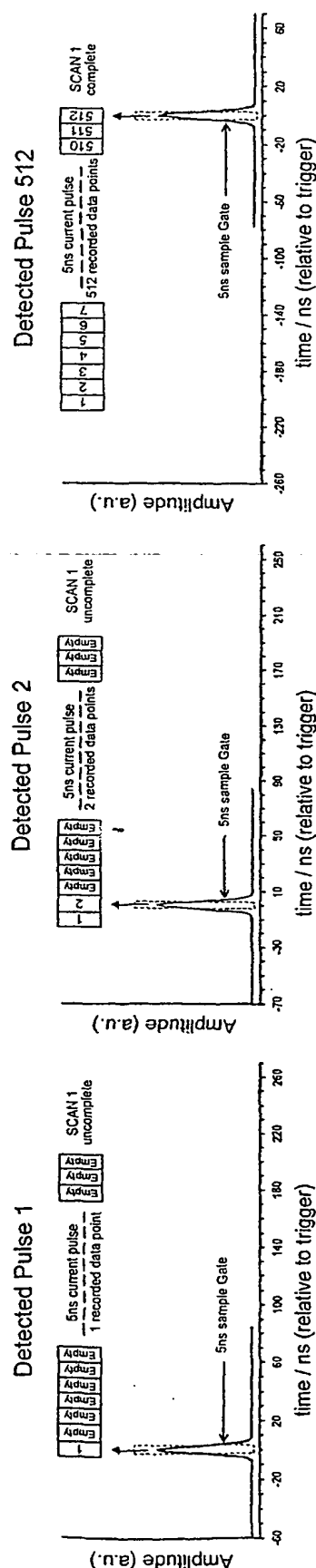


Fig.9

Method 1



Method 2



39.1 ms duration at 20KHz PRF

Fig.10

6/11

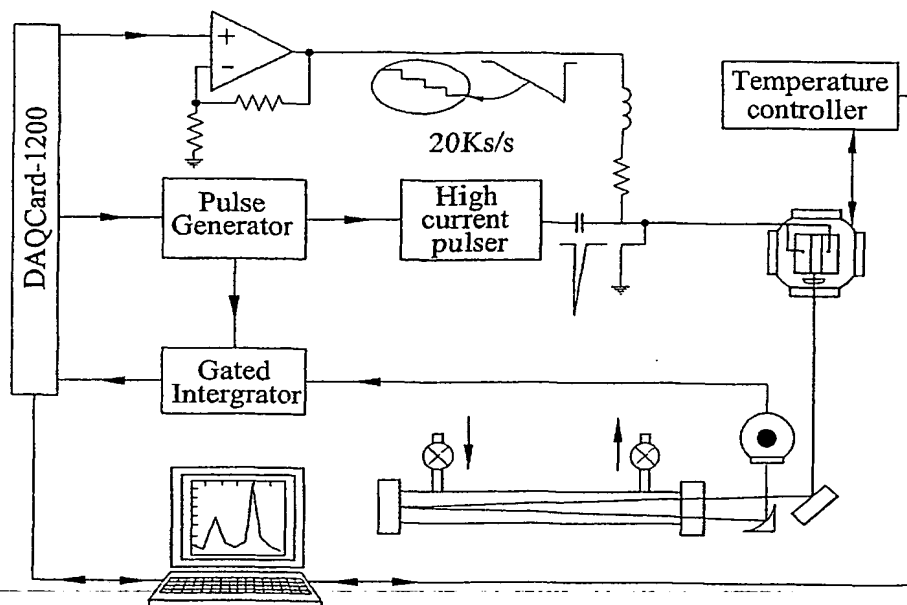


Fig11

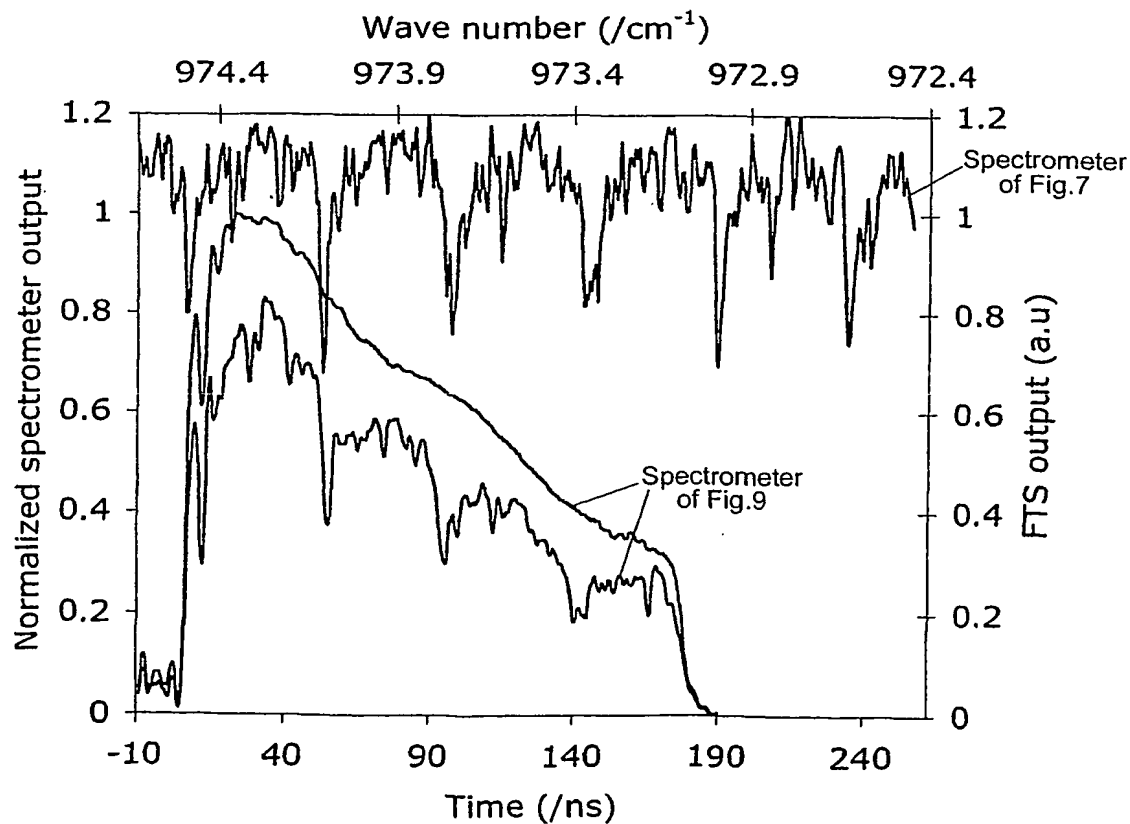


Fig.12

7/11

10/511041

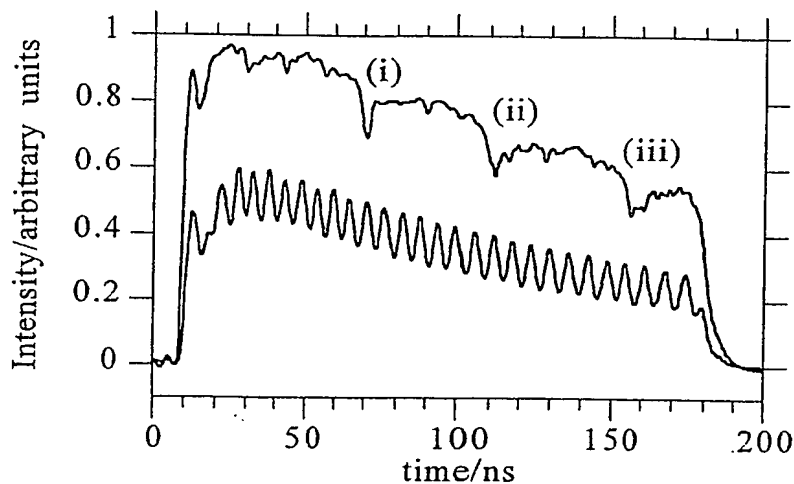


Fig. 13

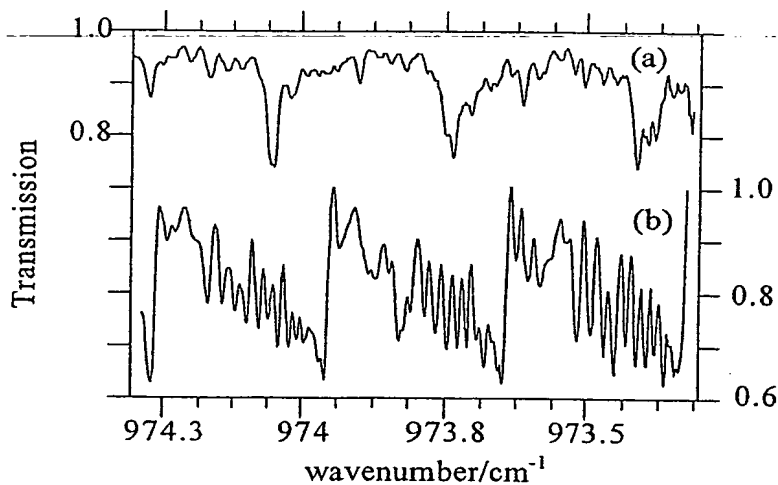


Fig. 14

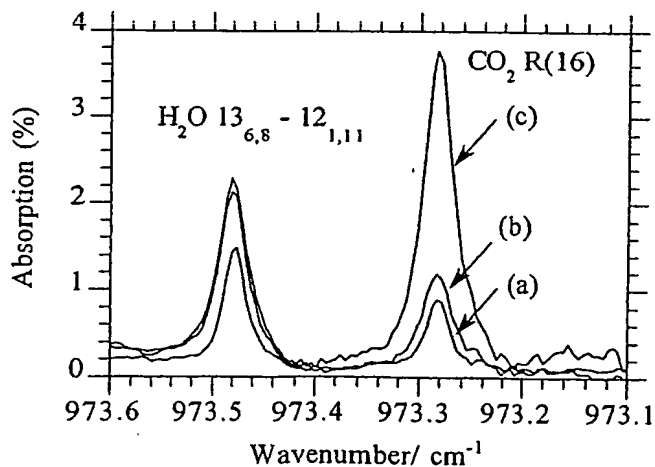


Fig. 15

10/511041

8/11

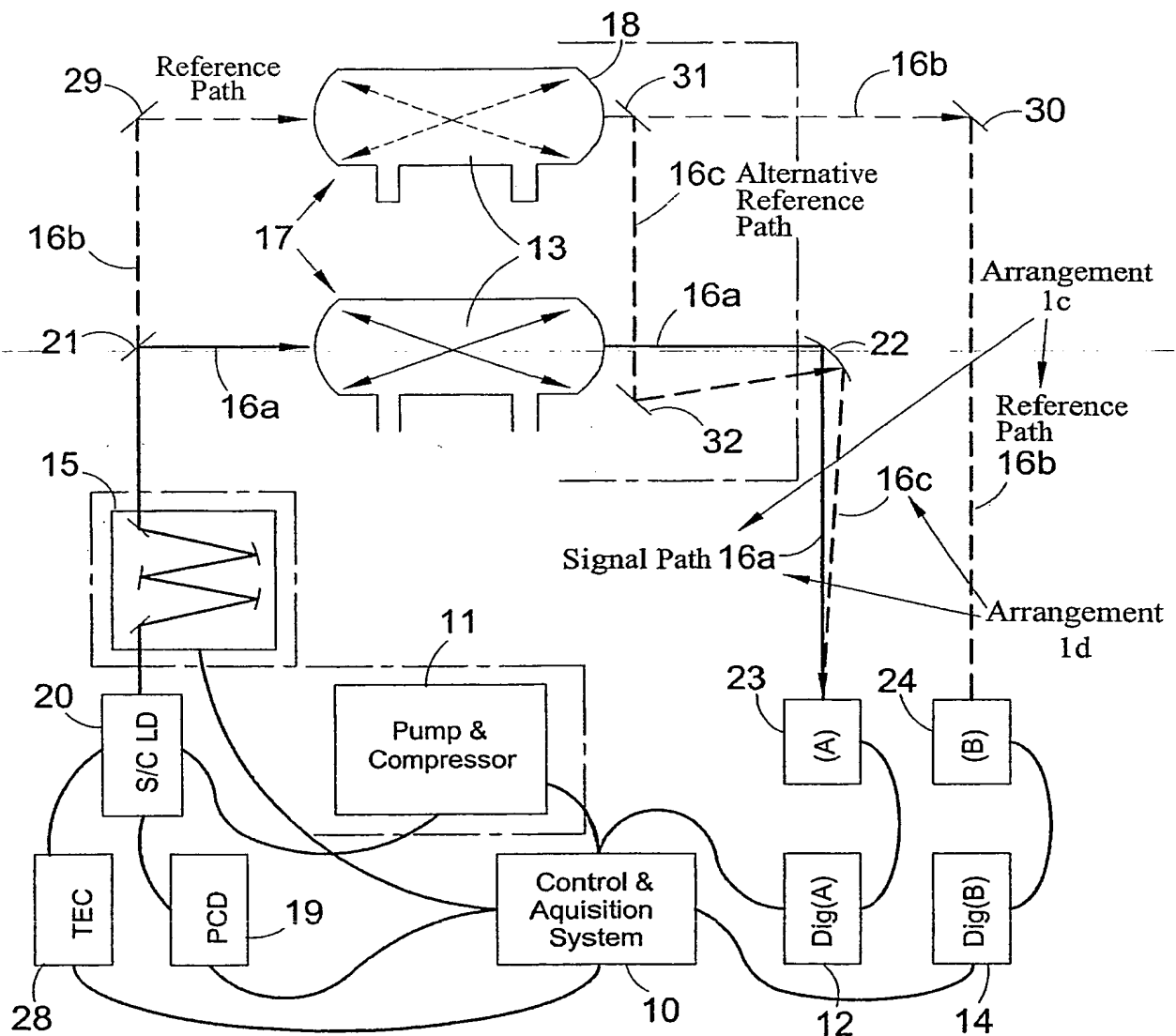


Fig.16

10/511041

9/11

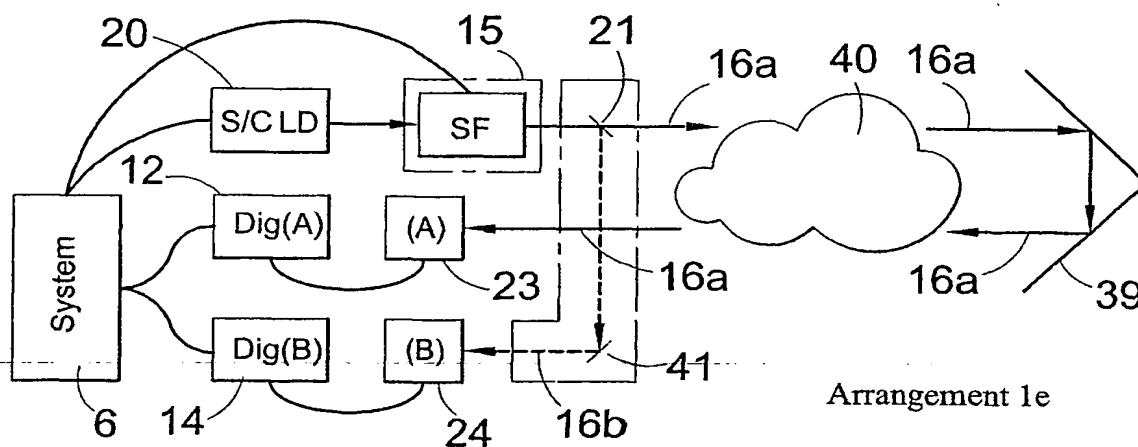


Fig.17

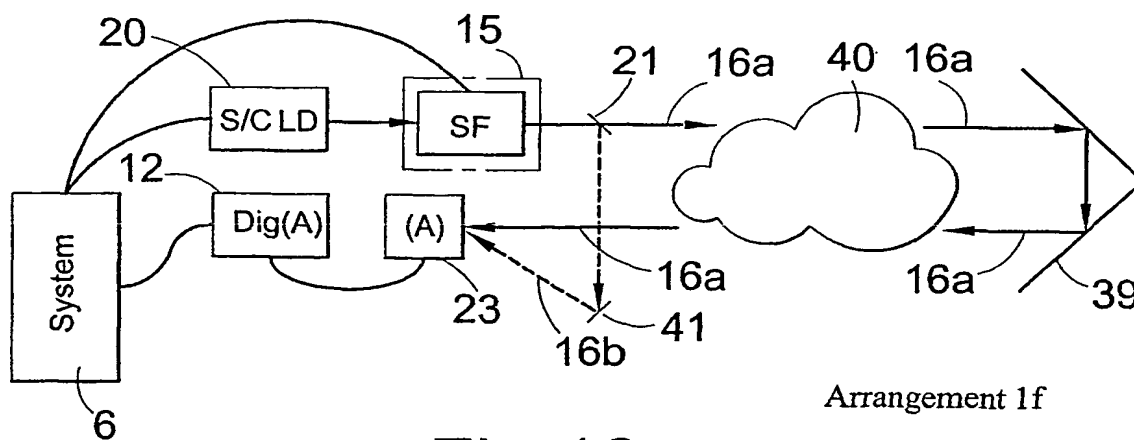


Fig.18

Multi-mode semiconductor diode laser & Sample Gas
(spectral domain)

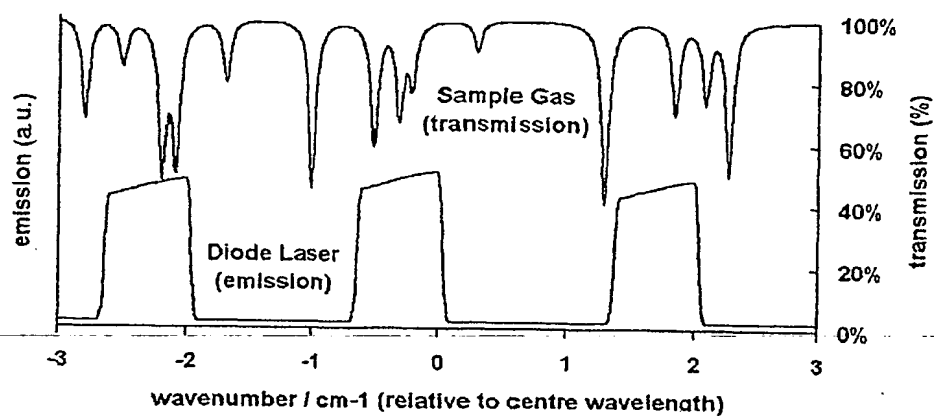


Fig.19a

Multi-mode semiconductor diode laser: absorbed
(spectral domain)

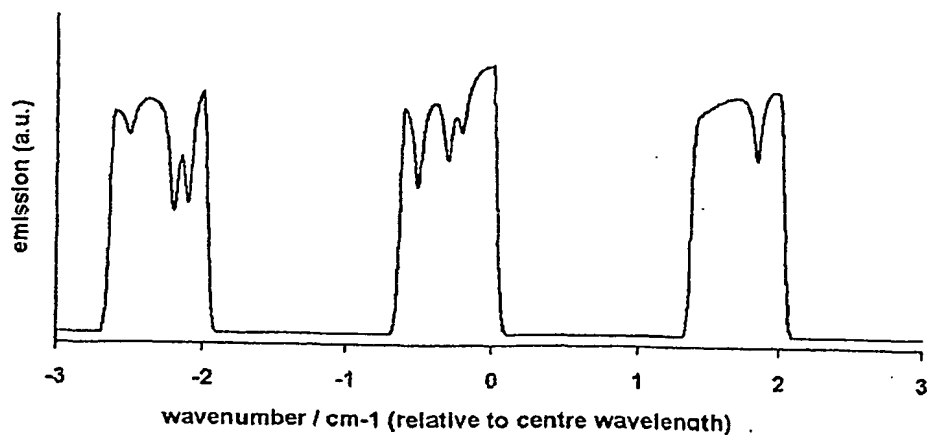


Fig.19b

11/11

10/511041

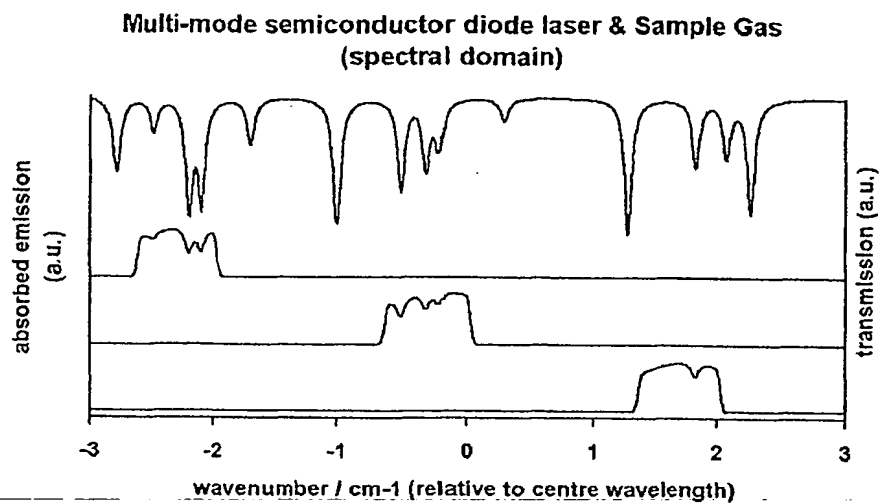


Fig.20

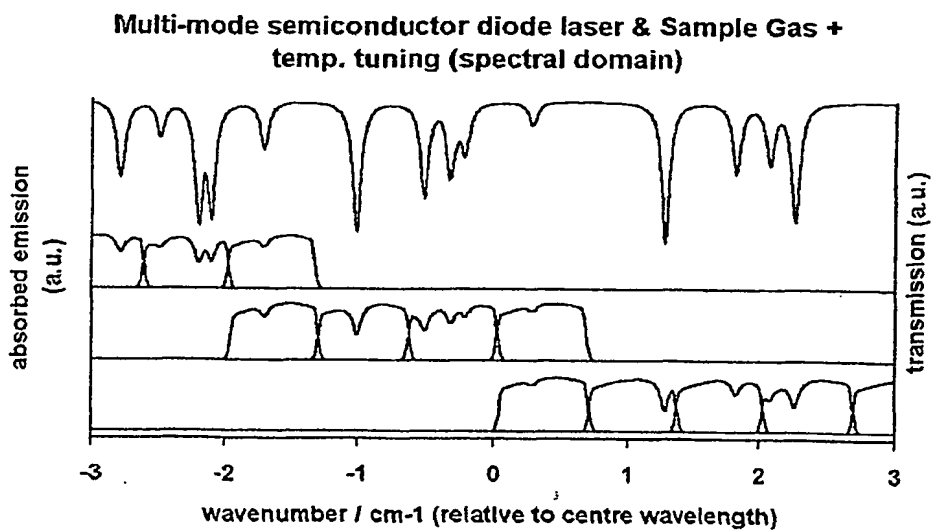


Fig.21

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.